Missouri Botanical Garden

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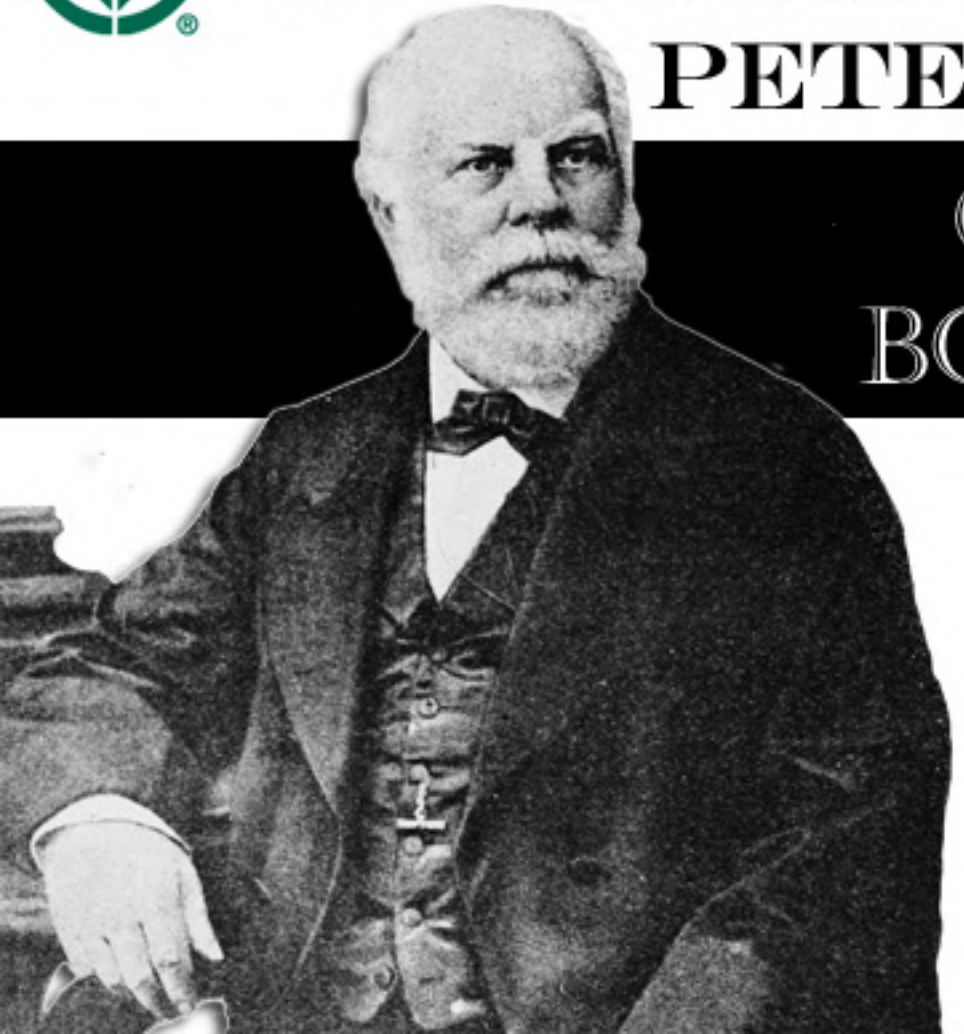


Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Hort Schiffner. Münster Juni 1857

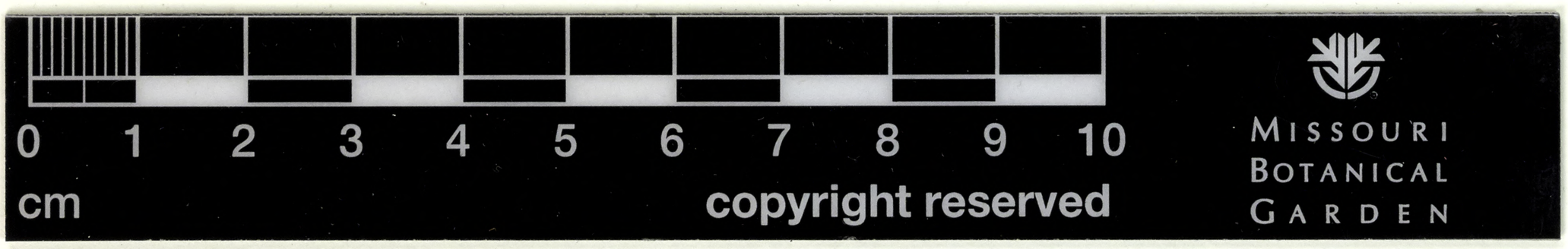
C. dichroanthum (steudgeri) large purple flowers, apparently similar to *C. dichroanthum* Boiss of Orballaten, but spines much larger. flowering ~~last~~ only a short time.

sepalis inferioribus 27-28 ovatis, cuspidato acutis margine membranaceis, superioribus 10-15 oblongo lanceolatis coloratis margine plus minus membranaceis (inferioribus subovatis) acutis v. cuspidatis, petalis 13-15 lanceolatis acutis; adnatis ex ima basi et toto tubo circ (neque basi nuda); stylo rubello ad basin 8 fido; ramis vasculosis clavatis stigmatosis, conplanatis obtusis.

1433

C. obovallatus flowers very similar in appearance to last but really distinct, spines smaller; flowering period short.

sepalis inferioribus ad 25 ovatis cuspidato-acutis, margine membranaceo crenato-ciliatis; superioribus 8-10 oblongis acutis coloratis margine plus minus membranaceis petalis 10-13 lanceolatis acuminatis albo-striatis. staminibus pluribus tubo superiori adnatis, inferiore tubi parte majore nudo, stylo rubello, apice 4 stigmata 8 brevia petala divisio.



Do the new areolae of this spring, produce flowers later in the season?

Does the same process take place in Echinocereus and these plants. = Their relative country?

flowers 2 or 2½ inches from the centre of the plant.

Flowers about 2½ inches long, whitish or pale rose-colour; 3 or 4 rows on ovary, naked, 15–18 sepals; all are also about 18 petals; stigmata 11–12, rather short;

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is a Cereus!! [1864]

Ch. reductus (label adnexed, illegible!) = Hort Jardin

June 10th Small globose plant 3" diam. 6–8 stout brown, curved radial & 1 slender central spine, all 1 inch long; flowers outer, white, large, 3 inches long, with very few scales on tube and ovary.

Hort Schaefer Münster Zecae 1857

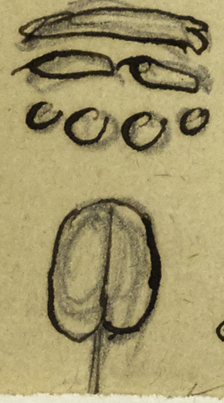
Ech. microanthus (also a Stenogonus ? this and

C. pentaranthus and phyllaranthus are too closely allied

(ie Schaefer) — flowers whitish yellow or rather

ochroleucous, appearing although the whole season.

about 1 inch long. 1431



sepalis ovatis ipsius subnullis tubi ? fauces ovatis

antheris viridibus margine membranaceis ab 8

sepalis alternis 13 lanceolatis acuminatis antheris

coloratis magis membranaceis ? subpluveris . petalis

lanceolatis acuminatis ochroleucis 13, tubo ? intus basi

breviter nudo; staminibus 9-10 ~~petalis~~ subpluveris

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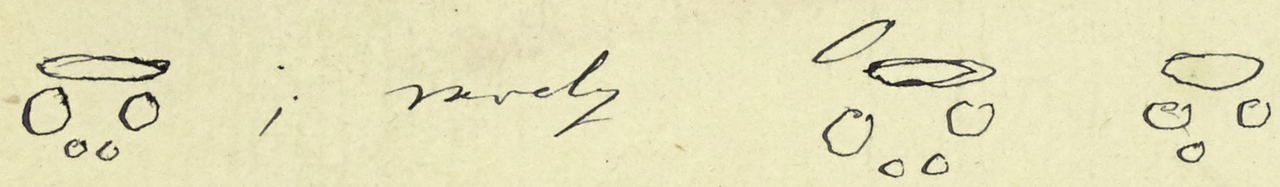
GEO. ENGELMANN, M. D.
3003 *Locust Street.*

1435

St. Louis, Mo., May 12 1871

Echinocactus phyllacanthus
from San Luis Potosi, Terry & Palmer; now
cult in Shaws Garden.

Depressed globose, 3½ in diam, 2½ high,
dark green
38–40 very narrow undulate ribs
areolae 1¼ inch apart on ribs with
1 longer (1½ inch) flat upper erect, two
terete ribbed lateral spines, shorter, 6–10‴
and two still shorter lower ones, 3–4 lin.
; rarely 

Flowers arising on top, white, 10 l. long
12 l wide
Ovary & tube dark green auriculate – 3 angular scales,
very short
on ovary green red in middle, membranaceous;
segments of tube dark red green in outer, white
outside acute;
petals 18–20 lanceolate, acute, with a pale
reddish stripe; or innermost nearly white;
anthers cuneate very short
style exceeding the stamens, with 9–10
spreading whitish stigmas.

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From Dr Rozelyn's letter to Dr Weber
Berlin March 25 1869

Rhizomorphi stenogyni belong
to 4 principal forms."

E. phyllanthus

E. obvallatus

E. laurifer

E. aurifer

E. optogonus does not belong to these
sections at all.

1436

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Echinocactus

see remarks below. Frankfurt Febr 1857

x other side

1437

Echinoc. phyllacanthus (Coll Jacobi)

0.5 lin; subglobose, black, shining finely but very distinctly reticulate, carinate on back, rounded - front, hilum large, basal, broadly oval Embryo exalbum. with very indistinct ventral [redacted]

Coty leaf parallel

Echinocactus Lancifer var or perhaps a hybrid of E. lancifer & "camellosus" coll. Jacobi

0.7 - 0.8 lin. obovate subglobose obliquely to the dorsal strongly carinate side, reticulate almost shining, black; - hilum oval, basilar Embryo exalbuminous; divisions of Cotyledons anterior, parallel, more indistinct than in any other species of some size I have seen.

Ech. tricuspidatus (Coll Jacobi)

0.5 lin almost globose, black somewhat shining, reticulate, with large almost orbicular basal hilum; strongly carinate

seeds similar to those of Rhodostigma !

on last page These seeds have all a remarkable resemblance and clearly indicate that they belong to a certain well defined section of Echinocactus, distinguished by black reticulated testa, subglobose form, large hilum which is apparently basal, but is ventral if the embryo is considered erect, as an exalbuminous embryo.

Cotyledons — subglobose, with very indistinct divided cotyledons, which — parallel or sometimes subobliquely incumbent.

E. Cumingii var, № 2, has the cotyledons scarcely perceptible — perhaps a sterile Lobed ?? — Endosperm white & thick corresponding to shape & hilum

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Echinocactus obvallatus De Candolle?

(Pl. 22.)

Les plantes, que j'ai décrites dans mon Enumération (1837) sous le nom d'Echinoc. obvallatus DC., ont tiré leur origine de graines, que Mr. Schelhas à Cassel avait reçues du Méxique. Toutes jeunes elles avaient tout à fait les caractères de plusieurs espèces de Mammillaires, surtout des jeunes M. magnimamma. Lorsque plus tard les côtes commencèrent à se développer, nous croyions, que c'était l'Echin. dichroacanthus Mart., mais enfin elles devinrent tellement semblables à la figure de l'E. obvallatus DC. revue pl. 9, que je n'ai pas hésité à les décrire sous ce nom.

La plante appartient au groupe des E. stenogoni et malgré les différences, qui se sont offertes, lorsque les fleurs étaient observées, je lui ai conservé le nom, sous lequel elle a été répandue, en attendant que ce groupe difficile soit mis en ordre scientifique par quelque auteur, qui aura sous ses yeux un nombre plus considérable de ces formes.

Les côtes nombreuses sont trés comprimées, onduleuses, un peu renflées autour des aréoles. Celles-ci sont très eloignées et portent 4 aiguillons principaux, dont l'un est dirigé en haut, deux autres à coté, le quatrième central. D'ailleurs on en voit 4 autres, plus minces et plus courts, tous dirigés en bas. Dans la figure de Mr. De Candolle les 4 aiguillons principaux paraissent avoir la même disposition, caractère que je n'ai retrouvé dans aucune des autres espèces de ce groupe.

La fleur figurée dans l'ouvrage de Mr. De Candolle a une longueur d'à peine un pouce, elle n'est pas étalée, peut-être parcequ'elle est environnée des aiguillons érigés du sommet, peut-être aussi qu'elle n'était pas encore parfaitement développée, lorsqu'elle fut dessiné.

Les fleurs de notre plante au contraire sont très grandes, fort étalées, les pétales linéaires, allongés, d'un beau pourpre. Cependant il ne me paraît pas impossible, que ce sont les mêmes fleurs, qui dans une plante d'origine européenne, croissant vigoureusement, ont trouvé plus d'espace pour se développer. — Je ne les ai pas vu moi-même, mais je sais, que le dessin et la lithographie sont exactes.

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Echinocactus obvallatus.

(Taf. XXII.)

Echinocactus obvallatus De Cand. prodr. III. p. 462?
— — — — De Cand. revue p. 37. t. 9.
— — — — Pfeiffer enum. p. 63. N. 41.
— — — — Pfeiffer Synon. S. 64. N. 34.
— — — — Förster Handb. d. Cact. S. 308?

E. depressus vel globosus, obscure viridis, multangularis; costis compressissimis crispulis, circa are areolis remotissimis, junioribus albo-velutinis; aculeis superioribus 4 rigidis, ensiformibus, decussatis, albidis, neis (2 lateralibus minoribus), inferioribus 4 multo gracilioribus.

Habitat in republica mexicana.

Bei der grossen Schwierigkeit der Artbestimmung in der Gruppe der Echinocacti stenogoni behal weilen für diese schöne Pflanze den Namen bei, unter welchem ich sie in meiner Enumeratio beschrieben mir mit der Decandolleschen Abbildung der gleichnamigen Art hinreichend übereinzustimmen schien. Ob dieselbe Art ist, wird sich bei der bekannten Flüchtigkeit jener in der Revue aufgenommenen Abbildungen scheiden lassen. Die Stellung und Gestalt der Kanten, so wie auch die Zahl und Bildung der Stacheln von De Candolle sehr ähnlich; nur die Blüthen passen nicht recht.

Der wesentliche Charakter der von mir bisher als E. obvallatus angenommenen Art besteht i schwertförmigen, ins Kreuz gestellten Hauptstacheln, zu welchen in der Regel 4 kleinere, nach unten geri kommen. Die Kanten sind sehr zusammengedrückt, wellig, um die sehr entferntstehenden Areolen etwas

Die Pflanzen, von welchen eine blühende dargestellt ist, waren von Hrn. Schelhas aus mexikani erzogen worden, und waren im Anfange von jungen Mammillarien nicht zu unterscheiden, wurden auch Theil für Mamm. magnimamma versandt, bis bei weiterm Wachsthume sich die scharfen Kanten entwick ähnliche Erscheinung kommt bei den meisten Echinocacten dieser Gruppe vor.)

Die Blumen habe ich nicht in ihrer Entwicklung gesehen und kann daher nur auf unsre Tafel v Obwohl bei der De Candolleschen Abbildung die Blüthen aufrecht, nur 1 Zoll lang, ganz in die Scheite geschlossen, roth, mit weissem Rande erscheinen, so ist es doch nicht unmöglich, dass sie dieselbe A indem vielleicht durch üppiges Wachsthum der in Europa gezogenen Pflanze die Blumen einen freieren S Entwickelung erhielten, und jene vielleicht noch nicht ganz geöffnet waren.

---

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rispulis, circa areol
decussatis, albidis, a

ti stenogoni behalte
ratio beschrieben ha
nmen schien. Ob e
enen Abbildungen s
ng der Stacheln ist

en Art besteht in
nach unten gerich
n Areolen etwas a
as aus mexikanisch
, wurden auch wi
n Kanten entwickel

auf unsre Tafel ver
nz in die Scheitelst
ss sie dieselbe Art
einen freieren Spi

ver. cor.

H. B. Fr. 1825

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DC Trans 1. 50

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369-370

1436

Ech. Scheeri" flowering St Louis April 1860

flowers 1 inch long green or yellowish green

ovary abt 3 or 3-4 lines long, with 1 or 2 reniform membranaceous scales.

tube with 9 or 10 semi-circular membranaceous auriculate distinct scales

upper calyx-tube scales (obtuse oblong) green-ish,

abt 5 to 8 in number

petals abt 13. linear oblong acute or cuspidate yellowish green

stamens from abt 1-1½ lines above the ovary (tube thus far naked.) filaments red

stigmata slender subexsert. 7-9 reddish

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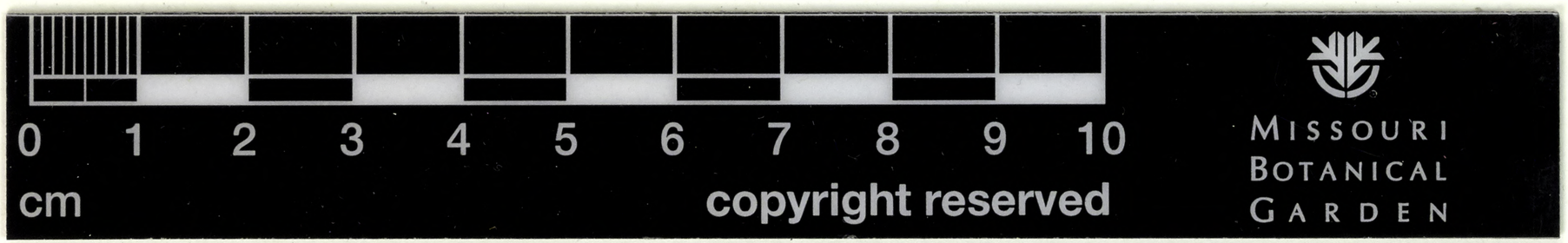
Ech. Scheeri 20-21 radial spines, upper ones longest, 3 upper central spines often twice as long as the lower one or as the upper radial spines.

1440

Dr Poselger informs me that the thick roots creep under the surface and form stolons off 1-2 feet from the parent plant. The roots are of the thickness of a Quill or lead pencil or a little thicker, of a whitish colour and terminate, if not stoloniferous, in a rounded blunt point.

at Poselgers Berlin March 1857



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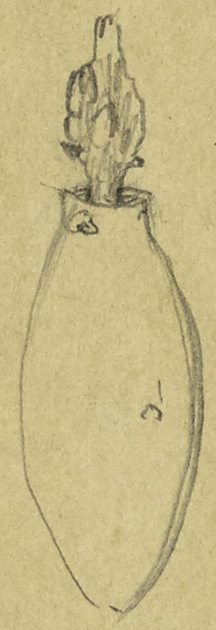
Paris Museum 1866
L. & A. Weber's.



upper sepal of fruit

lower sepal of fruit

Echinocactus, mixed with
E. Scheerii ? or Scheerii ?
A Weber
April 1866

Cadereita
~~East~~ of Monterey
towards Matamoras

on another fruit are apparently
5 sepals

only 3 sepals seen
on fruit

fruit apparently green and
somewhat fleshy

XR

The other fruit, mixed with
it is also green, the
fragment preserved without
any scales, and the seeds
exactly like my E. sinuatus
B.C. 74 fig 12.13.

Can it be the fruit and seed of E. brevihamatus

1441

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No 6.

E. Scheeri 1442

No 6. From Eagle Pass up towards the San Pedro river I met with
this species more frequent then any where else. It is also
easily found on the road leading from Eagle Pass to Santa
Rosa in Mexico and also in the vicinity of this place.

1443

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suppl… the nature
of the soil. I saw it at least most common where the soil
was formed of igneous rocks, puddingstones, basaltic or
trachytic remainders. This species also is remarkable for the

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Eriocaulon Sandillon is named

in Hooker & Schwartz Catalog

Eriocaulon Sandillon Phil

Phillips? Where described?

1444

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J.C. Kirkbride — APOTHECARY — St. Louis, Mo. — 2348 Olive St.

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Prescribed by

G. ENGELMANN, M. D.,

OFFICE.—S. W. Cor. 5th & Elm Streets.

RESIDENCE,—N. W. Cor, Garrison Ave, & Locust Street.

Dec 1859

372-386

Echinocactus Simpsonii

July 9th 1859 Kobevalley, Nevada (western Utah.

Henry Engelmann leg.

(Caulescens simplex mamillatus) (radicibus plenis fusiformi-
bus, tuberculatus subglobosus) tuberculi 8/21 — 13/34
in ordine 8/21 — 13/34 dispositis ovati superne
leviter compressi basi decurso-producti
vix tuberculo obcompressis rhlatati; axilli
nudi areolis ovatis (ovati s.) lanuginosis glandulis
albotomentosis; aculei extrorsi radiales sub 20
tenuiter albi, additis supra 2-5 setaceis
rectiusculis 8-10 erecto patulis robustioribus, flavi
apice fuscis nigrisve; areola floripara ovalis
(areolam) apicalem fere (antigeam subterminalem)
(subapicali); floribus — apice plantae sparsis; ovario
brevi, tubercula s. squamis 1-3 instructo.

1445

flore maximo ante demum dorsi-
bacca viridi sicca, fusiformi rugosa, laevi irregulari
dehiscente fulvo-lanata; rostro
semina majuscula, obovata obliqua Tuberculati
hilo magno ovato subbasilari; cotyledonibus haud
albumen parvum; curvatum
obtusis brevibus.

Single specimen (average size) before
me 4 inches diam, 5 1/2 inches high from the root,
not only about 3 inches out of ground.
tubercles deep green; thick ones, near the top

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of the plant 6–7 lines long all at once 6 or 7 lines
in the vertical, and 4 or 5 lines in the transverse diameter;
soon tapering to a sebroyle or somewhat bluntly
compressed thumble, truncate at tip with an areola 7
3–4 lines long and with a the half as wide
petals tubercles shorter and rather slenter;
Staminate spines weaker and shorter 4–6 lines long, into
ones also spreading, slender and a little longer, 5–7 l.
with upper half deep brown or black; no truly central spine
plants reddish
fruit 3 inches long and fully as thick, smooth for an
areola (wreath fully as wide), reminded by the rim of white
tomentum; and with a large flat umbilicus;
of the appearance of a the whole fruit looks like a
short cylinder; below the upper edge 1–3 mm
broad triangular scales are noticed, which
sometimes bear 1 or 2 short white spines in the
tomentose axil. The fruit opens laterally
and is open at base, where it separates from the
pericarp, like many other Echinocacti.
Seeds about a dozen, 1½ lines long, obliquely
compressed, convex on the back, with a large white
hilum at base; testa hard black, brittle rough
with numerous globose pearlike shining tubercles.
Embryo straight hooked, with a small albumen.

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A most interesting species, to all appearance
a Thamnillaria, but technically an
Echinocactus, on account of the position
of the flower contiguous to the spines,
the few scales on the ovary and perhaps
also the tuberculate seed, and the

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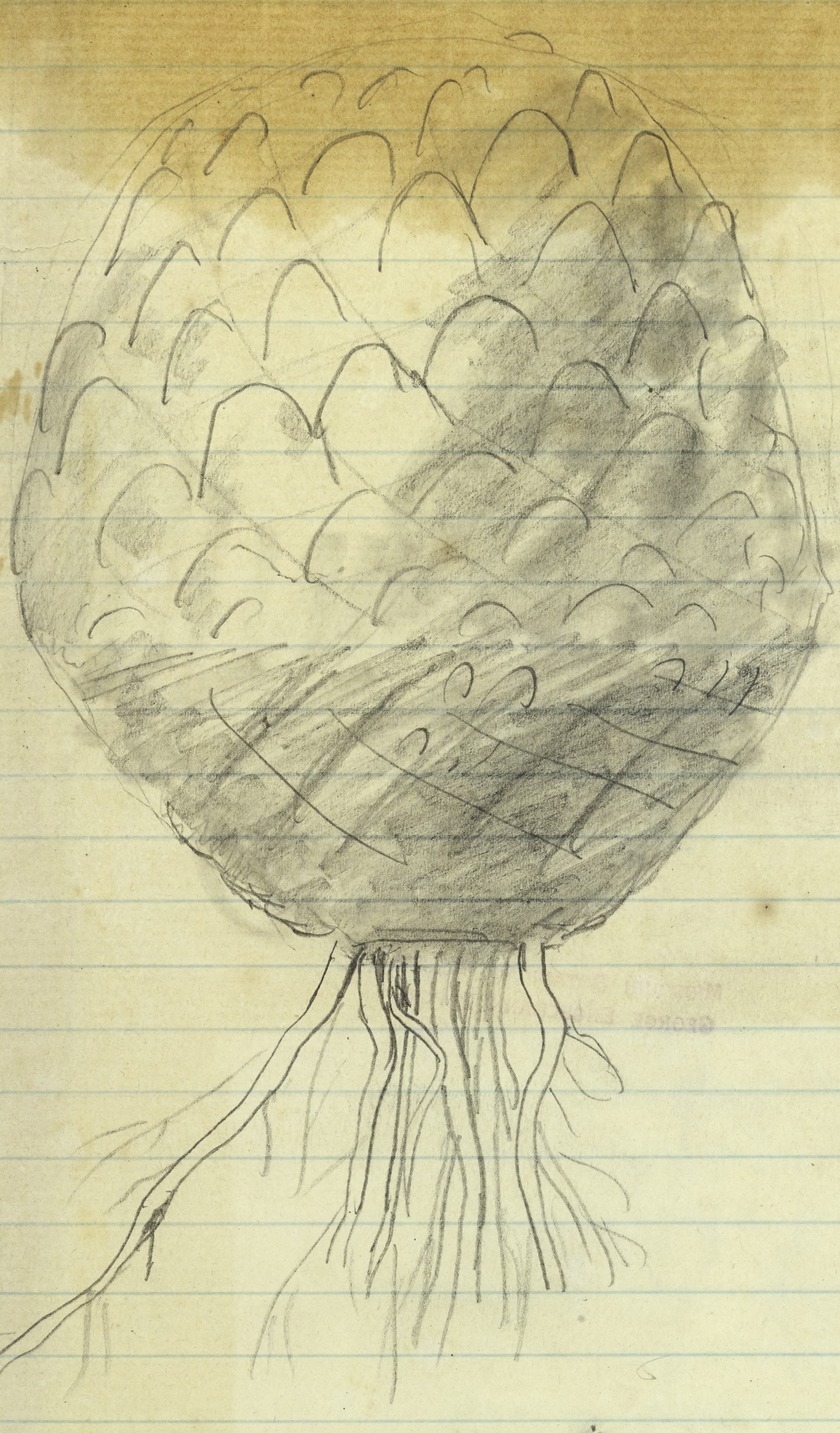
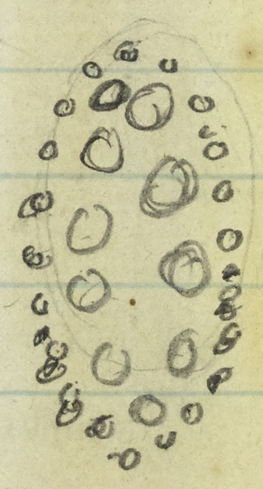
Strongly

1446





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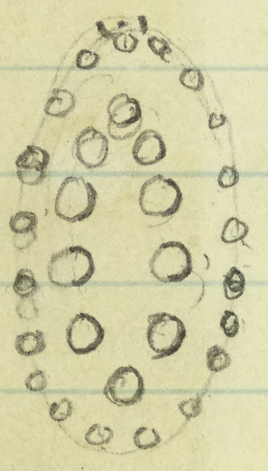
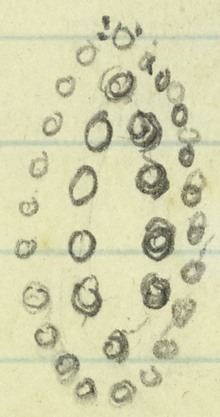


10 ÷ 20



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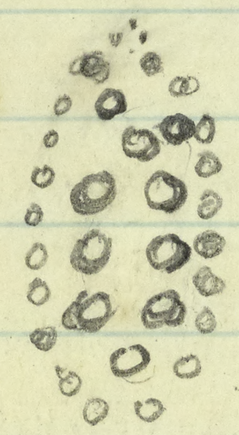
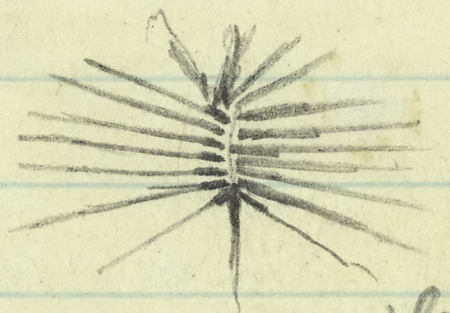
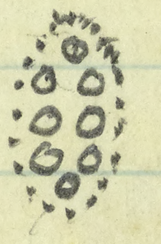


8+2 ; 20+3



very young plant.
sp. only 1—1½ l. long



soon after
wards.

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1447

Pfersdorf writes 22 Jan 1872

Dr Weber, Celo and myself have compared yr
Eleocharides Suppos with E. Smithii Muhlenb
and can not find any difference between it
E. Haynii Otto is also very near it

—

E. Haynii Otto, Salm p. 165 is a costate plant
compared with Scopa
E Smithii not = Salm nor Labourd
but = Wlp Ann. 1. 333 = mamillem forms
anul. nd 20, rectul. 3 2/3 poll longis
transvers = crenatis

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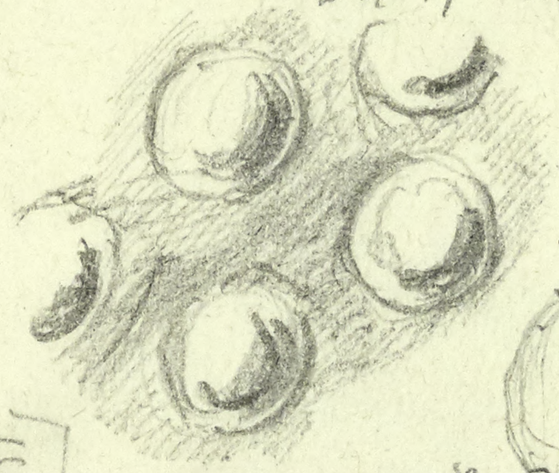
Echinocereus

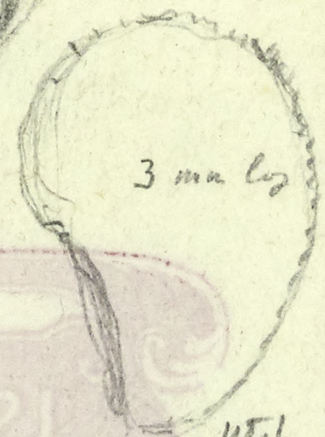
Dec 19 1882

×8

3.5 mm long



×150



3 mm long

×8

Washington Terr.

1448

2, 3 mm long

Utah typical form

×150

Echinocereus Simpsonii, Colorado

0 1 2 3 4 5 6 7 8 9 10
cm
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MISSOURI BOTANICAL GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

COR. 4TH & OLIVE STS. ST. LOUIS.

APOTHECARY & PHARMACEUTIST

ALEX. LEITCH

9. 1.1
13 1.

0 1 2 3 4 5 6 7 8 9 10
cm
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MISSOURI BOTANICAL GARDEN

May 23 1883

Echinocactus (mamillariaeformis) Simpsoni ?

sent by C E Johnson

1449

yellowish, 2½ inches in diameter, deep green, tubercles oval, about ½ inch long, scarcely angled in $\frac{21}{34}$ order (13 & 21 spirals rows most prominent about 20) spines all slender, reddish, 3–4 lines long very grayish, white, inner ones often as many as 6, a little stronger 5 or 6 most 6 lines long, bulbous at base, bright red brown when young, with age pale when older. (but not central)

Flowers on top of tubercles close to nascent spines, 8–9 lines long, not as wide. ovary globose, with 1–2 very small or perhaps 5 scales & sepals of tube 15–16 oval, acute, brown-green with broad membranaceous deliately denticulate margin, petals about as many, oval, herbaceous (not petaloid), whitish with a yellowish or very pale rose tint. — Slips erect, 5–6, yellowish or light greenish, about 1 line long or even.

It seems that only the first tubercles of the season bear flowers, which they do not appear central, all the following more central ones are sterile; They may open shortly 11 flowers or buds, and about as many nascent sterile tubercles inside of these, The tubercles which have born fruit are marked by a deep hole, a line in diameter, near the crown

American Association for the Advancement of Science.

Cincinnati Meeting, August 17, 1881.

BLANK FOR TITLE AND ABSTRACT OF COMMUNICATION.

No...... *Section*..... *Subsection*.....

Title of Paper:

upper Margin of the spikes — which hole is wanting in the others, which have not born flowers.

The same was sent with my first by A. L. Siler end of May — which ops 18-22 central ♂ (or less) all pale — my first

Time..... *Minutes.*

Name and address of author:

with trace of ovaries and sepals, 1 or 2, fringed — Here also most Mamillae were without vestige of flowering. — Shape more flattened than globose

Lille's Ranch, South Utah.

By instructions of the Standing Committee, Titles of papers *will not* be put on the list of papers offered unless abstracts are received. Authors will, therefore, please write their abstracts on the sheets containing the titles of their papers. The Committee also request that the titles and abstracts be sent to the *Permanent Secretary* at an early day, at least *one week before the meeting* when practicable. It is also particularly desired that the abstract be so prepared that it can be printed in the Proceedings of the meeting, should the paper be accepted by the Standing Committee for publication in that form.

Copies of this blank can be had of the *Permanent Secretary*. Address F. W. PUTNAM, *Permanent Secretary*, SALEM, MASS.

7 flowers — yellow or greenish "

ABSTRACT OF PAPER ENTERED ABOVE:

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

[Continued over.

0 1 2 3 4 5 6 7 8 9 10
cm
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MISSOURI BOTANICAL GARDEN

Echinocactus

H. Eagl. S. Simps. Exp. 1858-9

E. Simpsoni Engl. simple globose or depressed with tubercles like
a Mamillaria, bearing about 20 rigid whitened external 5-10
(dark brown) central spines, all straight rigid; flowers from the
top of the very young developing tubercles, 3/4 inch long; fruit
small; berry dry with few black tuberculated seeds. 1450

Butte Valley — Kobe Valley (with) in coarse gravel H. Eagl
(& N.H.)
first discovered by Capt Simpson Expedition 1859, & named
for the Honorable (S.) Secretary of Mountains to Ann Arbor
abundantly on the eastern declivity of the Rocky Mts — Colorado,
the smaller form

H. — April & May. — Plant 2-4 inches high; very
similar to forms of Ma. vivipara; but tubercles with grooved
& many of the (exhibiting) the scars of former fruit-stalks
on top — Spines 6-8 in long; flowers about 9-10 lines long, dark to
yellow & green to pale purple, — a larger form has much stouter
(a smaller variety has the petals spinulose-ciliate)
tubercles & stouter spines, (some bear central ones) often 12-14 l. long. the two extremes are very dissimilar
in appearance.

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